



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
Group Art Unit 2837

In re

Patent Application of

Brian T. Branecky, et al.

Application No. 10/662,052

Confirmation No. 8331

Filed: September 12, 2003

Examiner: McCloud, Renata D.

"FIXED SPEED DRIVE"

I, Bridget Laack, hereby certify that this correspondence is being deposited with the US Postal Service as first class mail in an envelope addressed to Assistant Commissioner for Patents, Washington, D.C. 20231, on the date of my signature.

Bridget Laack  
Signature

1/17/2007  
Date of Signature

**COMMENTS ON STATEMENT OF REASONS FOR ALLOWANCE**

Mail Stop Issue Fee  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This communication is in response to the Examiner's statement of the reasons for allowance of the claims, contained within the Notice of Allowance and Fee(s) Due. The Examiner may have generalized some of the features of the independent claims and did not discuss the dependent claims. Therefore, the reasons set forth by the Examiner are not the only reasons claims 1, 2, 5-14 and 16 are allowable. Each of claims 1, 2, 5-14 and 16 may include additional patentable features or combinations of features not mentioned by the Examiner.

Applicants assert, with respect to independent claim 1, the prior art does not teach or suggest a pump assembly for pumping a liquid with a pump, the pump assembly comprising:

- a motor coupled to the pump; and
- an electronic switch assembly electrically connected to the motor to control the current through the motor, the electronic switch assembly comprising
- an electronic switch,

a voltage sense circuit comprising a sensor that senses the voltage across the electronic switch,

a generator that provides a substantially periodic pulsing signal, the pulses having a relation to the zero crossings of the sensed voltage,

a circuit control configured to provide a second signal, and

decision logic connected to the generator, the circuit control, and the electronic switch, the decision logic receiving the periodic pulsing and second signals and generating a control signal that selectively controls the electronic switch based on the periodic pulsing and second signals.

Various dependent claims ultimately depend from claim 1. Accordingly, each of these dependent claims is believed to be allowable based upon claim 1 and upon other features recited in the claims, but not discussed herein.

Applicants assert, with respect to independent claim 12, the prior art does not teach or suggest a pump assembly for pumping a liquid, the pump assembly comprising:

a pump;

a motor coupled to the pump; and

an electronic switch assembly electrically connected to the motor to control the current through the motor, the electronic switch assembly comprising

an electronic switch,

a voltage sense circuit comprising a sensor that senses the voltage across the electronic switch;

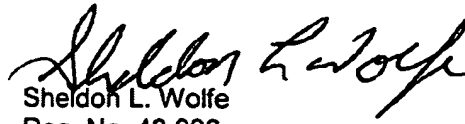
a generator that provides a substantially periodic pulsing signal, the generator pulsing the signal based on the zero crossings of the sensed voltage,

a circuit control comprising a liquid-level sensor and being configured to generate a second signal based on the level of the liquid to be pumped, and

decision logic connected to the generator, the circuit control, and the electronic switch, the decision logic receiving the periodic pulsing and second signals and generating a control signal that selectively controls the electronic switch based on the periodic pulsing and second signals.

Dependent claim 16 ultimately depends from claim 12. Accordingly, claim 16 is believed to be allowable based upon claim 12 and upon other features recited in the claims, but not discussed herein.

Respectfully submitted,

  
Sheldon L. Wolfe  
Reg. No. 43,996

Docket No.: 010121-9911-00  
Michael Best & Friedrich LLP  
100 East Wisconsin Avenue  
Suite 3300  
Milwaukee, Wisconsin 53202-4108  
(414) 271-6560

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